

## WE CLAIM:

1           1. A motor-vehicle antenna comprising:  
2           a monopole formed by a rigid circuit-board having a  
3           conductive trace;  
4           means including a socket for connecting a coaxial cable  
5           to the monopole; and  
6           a ground plane formed of rigid sheet metal or a circuit  
7           board and fixed to the monopole.

1           2. The motor-vehicle antenna defined in claim 1  
2           wherein the monopole and the ground plane are permanently bonded  
3           together.

1           3. The motor-vehicle antenna defined in claim 1  
2           wherein the ground plane is formed with an edge flange.

1           4. The motor-vehicle antenna defined in claim 3  
2           wherein the monopole is fixed to the edge flange.

1           5. The motor-vehicle antenna defined in claim 1  
2 wherein both the ground plane and monopole are substantially  
3 planar and extend generally perpendicular to each other.

1           6. The motor-vehicle antenna defined in claim 1  
2 wherein the socket includes jaws crimpable to the coaxial cable.

1           7. The motor-vehicle antenna defined in claim 6  
2 wherein the socket is fixed to the monopole or to the ground  
3 plane.

1           8. The motor-vehicle antenna defined in claim 6  
2 wherein the ground plane is made of sheet metal and the socket is  
3 unitarily formed with the ground plane.

1           9. The motor-vehicle antenna defined in claim 1,  
2 further comprising  
3           a splitter having a pair of inputs connectable via  
4           respective coaxial cables to two such monopoles and an output  
5           connectable to a receiver.

1           10. The motor-vehicle antenna defined in claim 1,  
2 further comprising  
3           a splitter having a pair of outputs connectable via  
4 respective coaxial cables to two such monopoles and an input  
5 connectable to a transmitter.

1           11. The motor-vehicle antenna defined in claim 1,  
2 further comprising  
3           a splitter having a printed-circuit board and two  
4 sockets connectable via respective coaxial cables to two such  
5 monopoles and another socket connectable to transmitter or  
6 receiver..

1           12. The motor-vehicle antenna defined in claim 11  
2 wherein the splitter further comprises  
3           a housing holding the printed-circuit board of the  
4 splitter.

1           13. A motor-vehicle antenna comprising:  
2           a monopole formed by a rigid circuit-board having a  
3 conductive trace;  
4           means including a socket for connecting a coaxial cable  
5 to the monopole; and

6           a ground plane formed of rigid sheet metal, having an  
7   edge flange fixed to the monopole, and extending generally  
8   perpendicular to the monopole.

1           14. The motor-vehicle antenna defined in claim 13  
2   wherein the flange is formed with a slot into which the board is  
3   set.

15. The motor-vehicle antenna defined in claim 13  
wherein the flange is unitarily formed with the socket.